

Table of Maximum and Minimum Temperatures for May, 1882.

State or Territory.	Signal Service.			U. S. Army Post Surgeons or Voluntary Observers.		
	Station.	Max.	Min.	Station.	Max.	Min.
Alabama.....	Mobile.....	92	0	Calera.....	97	36
Do.....	Montgomery.....	48				
Arizona.....	Yuma.....	104				
Do.....	Phoenix.....	102				
Do.....	Fort Apache.....	82				
Arkansas.....	Little Rock.....	87	49	Madison.....	92	28
Do.....				Brinkley and De- vall's Bluff.....	92	
California.....	Visalia.....	101		Borden.....	111	
Do.....	Campo.....	30		Cisco and Emi- grant Gap.....	24	
Colorado.....	West Las Animas.....	85		Fort Lyon.....	88	
Do.....	Denver.....	34		Fort Lewis.....	22	
Do.....	Pike's Peak.....	35	4			
Connecticut.....	New Haven.....	76	31	Southington.....	85	
Dakota.....	Rapid City.....	89		Fort Randall.....	91	
Do.....	Yankton.....	58		Fort Yates.....	18	
Do.....	Fort Buford.....	22				
Delaware.....	Del. Breakwater.....	76	42			
District of Columbia.....	Washington.....	86	37	Ft. Brook Tampa.....	95	
Florida.....	Key West.....	91		Live Oak.....	46	
Do.....	Pensacola.....	52		Way Cross.....	98	
Georgia.....	Savannah.....	91		Madison.....	31	
Do.....	Atlanta.....	45				
Idaho.....	Lewiston.....	88		Charleston.....	87	
Do.....	Eagle Rock.....	24		Riley.....	27	
Illinois.....	Calro.....	83		Logansport.....	90	
Do.....	Champaign.....	33				
Indiana.....	Indianapolis.....	80	37	Guttenburg and Nora Springs.....	24	
Indian Territory.....	*Fort Gibson.....	83	41			
Iowa.....	Des Moines.....	88		Clay Centre.....	98	
Do.....	Dubuque.....	31		Wellington.....	34	
Kansas.....	Leavenworth.....	89		Bowling Green.....	84	
Do.....	Dodge City.....	39		Cheneyville.....	108	
Kentucky.....	Louisville.....	85	44	Franklin.....	34	
Louisiana.....	Shreveport.....	93	49	Fort Preble.....	77	
Do.....				Gardiner.....	28	
Maine.....	Portland.....	72		Emmitsburg.....	87	
Do.....	Eastport.....	29		Woodstock.....	29	
Maryland.....	Baltimore.....	88	38	Westborough.....	83	
Do.....				Heath.....	26	
Massachusetts.....	Boston.....	81	31	Hastings.....	83	
Do.....				Minneapolis.....	79	
Michigan.....	Grand Haven.....	76		Waynesborough.....	100	
Do.....	Escanaba.....	20		Lake.....	41	
Minnesota.....	St. Paul.....	77		Jefferson Barracks.....	34	
Do.....	St. Vincent.....	22				
Mississippi.....	Vicksburg.....	80		De Soto.....	89	
Do.....	Starkville.....	50		Humboldt.....	92	
Missouri.....	Saint Louis.....	89		Contoocookville.....	80	
Do.....	Springfield.....	41		Grafton and New Market.....	30	
Montana.....	Cartersville.....	91		Readington.....	88	
Do.....	Deer Lodge.....	21		Atco.....	28	
Nebraska.....	North Platte.....	87	33	Deming.....	97	
Do.....				Fort Union.....	23	
Nevada.....	Winnemucca.....	86	23	Troy and West Point.....	88	
New Hampshire.....	Mt. Washington.....	46	4	Johnstown.....	24	
Do.....				Wadesboro.....	94	
New Jersey.....	Little Egg Harbor.....	83		Goldsboro.....	34	
Do.....	Atlantic City and Cape May.....	34		North Lewisburg and New Athens.....	30	
New Mexico.....	La Mesilla.....	95				
Do.....	Santa Fe.....	32		Fallington.....	88	
New York.....	Albany.....	79		Dyberry.....	20	
Do.....						
Do.....	Rochester.....	29		Fort Adams.....	70	
North Carolina.....	Kittyhawk.....	87		Allendale, Che- raw, Hardwell, and King's Tree.....	94	
Do.....	Smithville.....	43		Florence.....	82	
Ohio.....	Cincinnati.....	83		Milan and Withe.....	92	
Do.....				Erin.....	36	
Do.....	Cleveland.....	31				
Oregon.....	Umatilla.....	96	34	Coalville.....	77	
Do.....	Roseburg.....	34		Woodstock.....	51	
Pennsylvania.....	Pittsburg.....	82		Snowville.....	88	
Do.....				Acotink.....	88	
Do.....	Erie and Williams- port.....	32		Wytheville.....	32	
Rhode Island.....	Newport.....	75				
Do.....	Narragansett Pier.....	34				
South Carolina.....	Charleston.....	87	62	Fort Adams.....	70	
Do.....				Allendale, Che- raw, Hardwell, and King's Tree.....	94	
Do.....				Florence.....	82	
Tennessee.....	Memphis.....	90		Milan and Withe.....	92	
Do.....	Knoxville.....	41		Erin.....	36	
Texas.....	Eagle Pass.....	105				
Do.....	Fort Elliot.....	81				
Utah.....	Salt Lake City.....	83	35	Coalville.....	77	
Vermont.....				Woodstock.....	51	
Virginia.....	Norfolk.....	89		Snowville.....	88	
Do.....	Cape Henry.....			Acotink.....	88	
Do.....	Chincoteague and Lynchburg.....	42		Wytheville.....	32	
Washington Ter.....	Dayton.....	89	30			
Do.....	Pomeroy.....	86				
Do.....	Olympia.....	30				
West Virginia.....	Morgantown.....	79	31	Helvetia.....	84	
Wisconsin.....	La Crosse.....	80		Beloit.....	81	
Do.....	Milwaukee.....	51		Embarrass.....	90	
Wyoming.....	Cheyenne.....	77	23	Fort Bridger.....	19	
Do.....	Fort Washakie.....	77				

* Observations from 1st to 12th

ICE.

The formation of ice has been reported in the various states and territories as follows:

Connecticut: Southington, 6th, 7th, 16th.

Dakota: Alexandria, 21st, 22d.

Idaho: Eagle Rock, 17th.

Illinois: Rockford, 15th; Charleston, 2d.

Indiana: Logansport, 2d; Wabash, 15th, 16th; Fort Wayne, 1st, 23d, 24th.

Iowa: Davenport, Clinton, Muscatine and Nora Springs, 2d; Cresco, 22d, 23d; Fort Madison, 23d; Guttenburg, 22d, 30th; Independence, 21st, 22d; Dubuque, 23d.

Michigan: Detroit and Grand Haven, 2d.

Minnesota: Saint Paul, 2d, 23d.

Nebraska: Genoa, 1st, 21st.

Nevada: Carson City, 5th, 8th, 9th, 10th, 13th, 14th, 15th, 17th, 20th, 21st.

New York: Friendship, 16th, 18th, 26th. Waterburg, 3d, 6th, 7th, 16th, 18th, 19th. Albany, 3d.

Ohio: Bellefontaine, 1st, 2d, 3d. Cleveland, 3d. Jacksonburg, 3rd, 16th. North Lewisburg, 3d. Westerville, 1st, 3d. Toledo and Cleveland, 3d.

Pennsylvania: Fallsington, 3d.

Vermont: Charlotte, 16th. Strafford, 5th, 6th, 7th, 16th. Woodstock, 3d, 6th, 16th, 26th.

Wisconsin: Embarrass, 2d, 15th. La Crosse, 16th, 23d.

Wyoming: Fort Washakie, 19th.

PRECIPITATION.

The distribution of rainfall over the United States and Canada, as determined from observations taken at over six hundred stations, is exhibited on chart iii. The table on the left-hand corner of this chart, shows the average monthly rainfall determined from the records of Signal Service stations, in the several districts, and the excess or deficiency as compared with the average of many years. Large excesses occurred in the middle Atlantic and west Gulf states, in the Ohio valley, Tennessee, the lower lake region, and Rio Grande valley; the departures ranging from 2.00 inches in the Rio Grande valley, to 4.57 inches in the Ohio valley. On the summit of Mount Washington, an excess of 2.77 inches, and on the summit of Pike's Peak, an excess of 9.08 inches occurred. The largest deficiency occurred in the south Atlantic states, where it amounted to 1.28 inches. In the northern plateau district, a deficiency of 1.12 inches, and in the north Pacific coast region a deficiency of 0.87 inch occurred, and a slight deficiency is reported from the south Pacific coast region.

DEVIATIONS FROM AVERAGE PRECIPITATION.

Under this heading departures exhibited by the reports from the regular Signal Service stations, are shown in the table of comparative monthly rainfalls (as published in the lower left-hand corner of chart iii.) The following items of importance in connection with this subject are reported by voluntary observers.

Illinois: Riley, monthly rainfall 3.59 inches, or 0.27 inch more than the average of the past twenty-one years. The total precipitation for the spring of 1882, is 2.83 inches more than the spring average of the past twenty-one years, and has been exceeded in but two years during that period; viz.: in 1861 and 1868.

Indiana: Vevay, monthly rainfall 8.65, or 5.12 inches more than the average of the past seventeen years. Laconia, monthly rainfall 7.86 inches, which is the largest May rainfall that has occurred since 1868, when 8.08 inches fell.

Kansas: Wellington, monthly rainfall 7.20, or 2.20 inches more than the average of the past three years. During that period, the largest May rainfall, 9.37 inches, occurred in 1881; the smallest, 1.16 inches occurred in 1879. Total rainfall for the five months ending May 31st, is 13.47; for the same period in 1881, 14.52; in 1880, 6.78 and in 1879, 6.56 inches. Lawrence, monthly rainfall 3.53 inches, or 0.57 inch below the average of the past four-

teen years. Total precipitation for the five months ending May 31st is 10.71 inches, which is 1.19 inches below the average of the same period for the past fourteen years.

Maine: Gardiner, monthly rainfall 4.74 inches, or 0.66 inch more than the average of past forty-six years.

Maryland: Fallston, monthly rainfall 3.76 inches, or 0.76 inch more than the average of the eleven preceding years. During that period the largest May rainfall, 6.47 inches, occurred in 1873; the smallest, 0.70 inch, occurred in 1875.

Missouri: Saint Louis, Missouri Weather Service reports a slight deficiency in the rainfall for the month, as compared with the average of the past forty-five years.

New Hampshire: Contoocookville, monthly rainfall 4.25 inches, or 1.00 more than the May average of the past eleven years.

New York: Palermo, monthly rainfall, 2.53 inches, which is about the May average for the past twenty-three years. During that period the largest May rainfall, 6.90 inches, occurred in 1867; the smallest, 0.30 inch, occurred in 1870. Waterburg, monthly rainfall, 4.70, or 2.42 inches more than the May average of the past ten years. During that period the largest May rainfall, 4.65 inches (with the exception of May, 1882), occurred in 1881; the smallest, 0.52 inch, occurred in 1879. North Volney, monthly rainfall, 3.55, or 1.54 inches more than the May average of the nine preceding years. During that period the largest May rainfall, 3.15 inches (with the exception of the current year), occurred in 1878; the smallest, 1.10 inches, occurred in 1876. Total rainfall for spring, 8.47 inches, or 0.97 inch more than the spring average of the past nine years.

Virginia: Wytheville, monthly rainfall, 4.45 inches, or 1.00 inch more than the May average of past nineteen years. Total precipitation for the five months ending May 31st is 5.00 inches in excess of the average for the same period for the past nineteen years.

West Virginia:—Helvetia, monthly rainfall, 7.15, or 3.18 inches more than the May average of the past six years.

The following table, furnished by Dr. W. W. Hays, of San Luis Obispo, Cal., shows the monthly and annual precipitation at that place during the past twelve years. The station is situated in the county of the same name, about ten miles from the Pacific coast and about two hundred miles southeast of San Francisco.

Rainfall at San Luis Obispo during the Past Twelve Years.

[MEASURED BY DR. W. W. HAYS.]

Year.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May.	June	July.	Total
1869-70			.84	.66	.78	.71	4.85	.74	2.40	.85			11.83
1870-71			.68	.38	2.90	1.51	4.43		2.79	.28			12.97
1871-72			2.40	13.93	5.16	3.45	.71	1.37					27.02
1872-73				6.00	5.00	1.79							12.79
1873-74				7.96	4.29	4.04	3.23	1.00					20.52
1874-75		4.28	2.05	.48	12.10	.28	.50						19.69
1875-76			6.20	2.20	9.87	5.29	5.30	1.26					30.12
1876-77		1.16			4.83	.42	1.74						8.15
1877-78			1.42	3.90	7.88	11.91	2.74	2.75					30.60
1878-79			1.50	2.58	1.78	2.15	1.60	1.80	.25				11.69
1879-80			.75	1.40	3.03	1.75	7.23	2.36	8.78	.62			25.82
1880-81				.48	13.35	4.71	1.90	1.40	1.85				23.69
1881-82		.40	1.65	.25	2.00	.85	3.40	6.75	1.73				17.03

Table of Special Heavy, Largest and Smallest Monthly Rainfalls.

STATION.	SPECIAL HEAVY.			Largest Monthly.	SMALLEST MONTHLY.	
	Date.	Amt.	Duration	Amount, Inches.	STATION.	Amt.
<i>Alabama.</i>		inch.			<i>Arizona.</i>	<i>in's.</i>
Mt. Vernon Barracks.....	8	4.06	.....	8.57	Phoenix.....	0.00
do.....	21	3.01	.....		Yuma.....	0.00
Calera.....	8	4.00	.....	7.78	Casa Grande.....	0.00
State Line.....	11	3.04	.....	7.18	Maricopa	0.00
<i>Arkansas.</i>					Pantano.....	0.00
Malvern Junction.....	6 and 7	5.79	.....	17.36	Benson.....	0.00
do.....	9	8.26	.....		Wilcox.....	0.00
Little Rock.....	7	4.14	.....	15.91	Tucson.....	0.01
do.....	9	6.33	.....		Fort Verde.....	0.18
Walnut Ridge.....	8 and 9	8.40	.....	14.30	Fort Grant.....	0.33
Mount Ida.....	8 and 9	3.70	25 hrs.	12.45	Prescott.....	0.45
do.....	10	1.20	10 min.		Camp Thomas.....	0.47

Table of Special Heavy, Largest and Smallest Monthly Rainfalls—Continued.

STATION.	SPECIAL HEAVY.			Largest Monthly.	SMALLEST MONTHLY.	
	Date.	Amt.	Duration	Amount, Inches.	STATION.	Amt.
Fort Madison.....				10.50	<i>California.</i>	
Prescott.....	9	5.04		9.43	Brighton.....	0.00
Madison.....	9	2.70		8.27	Lathrop.....	0.00
Arkansas City.....	10	3.10		7.61	Stockton.....	0.00
Russellville.....	8 and 9	4.79		7.14	Rocklin.....	0.00
Fort Smith.....	7	2.73			Marysville.....	0.00
<i>Colorado.</i>					Chico.....	0.00
Pike's Peak.....	7	3.40		12.34	Turlock.....	0.00
do.....	8 and 9	3.31			Dunnigan.....	0.00
<i>Florida.</i>					Willows.....	0.00
Key West.....	26	2.89		7.49	Byron.....	0.00
<i>Georgia.</i>					Davis.....	0.00
Way Cross.....	8	2.93			Napa.....	0.00
<i>Illinois.</i>					Woodland.....	0.00
Springfield.....	5	3.35		10.69	Mojave.....	0.00
Cairo.....	9	4.24		10.22	Newhall.....	0.00
Anna.....				8.77	Spadina.....	0.00
Champaign.....				8.55	Colton.....	0.00
<i>Indiana.</i>					Indio.....	0.00
New Corydon.....				11.34	Mammoth Tank.....	0.00
Saint Meinrad.....				9.23	Antioch.....	0.00
Vevay.....	27 and 28	3.15	8 hrs.	8.65	Brentwood.....	0.00
Laconia.....				7.86	Alcatraz Island.....	0.02
Lafayette.....				7.80	Poway.....	0.04
Indianapolis.....				7.63	Tehama.....	0.05
New Harmony.....	9	2.74			Williams.....	0.05
Rising Sun.....	28 and 29	2.25	6 hrs.		Kingsburg.....	0.08
<i>Iowa.</i>					Lemoore.....	0.08
Cedar Rapids.....	5	3.25		9.13	Fresno.....	0.10
Des Moines.....	4 and 5	2.81		8.53	Rio Vista.....	0.10
Muscatine.....				8.36	San Fernando.....	0.10
Keokuk.....				7.11	Farmington.....	0.13
Fort Madison.....	5	3.30			Snitsun.....	0.14
<i>Kansas.</i>					Gall.....	0.15
Argyle.....				11.02	Oakland.....	0.15
Winfield.....				9.70	Knight's Landing.....	0.16
Clay Centre.....	26 and 27	6.02		9.37	Point San Jose.....	0.18
Oxford.....				8.16	Castroville.....	0.17
Salt City.....				8.16	Martinez.....	0.17
Belle Plain.....				8.10	Campo.....	0.18
Rolling Green.....				8.01	San Diego.....	0.18
Wellington.....				7.20	Angel Island.....	0.19
Caldwell.....				7.00	Tehachapi.....	0.20
Clay Centre.....	24	1.80	1 hr. 40m.		San Francisco.....	0.21
<i>Kentucky.</i>					Goshen.....	0.23
Bowling Green.....				8.65	South Valero.....	0.25
Louisville.....				7.46	Ionc.....	0.25
Paducah.....	9	4.30			Princeton.....	0.28
<i>Louisiana.</i>					Brighton.....	0.31
Amity City.....				8.11	Petaluma.....	0.31
Cheneyville.....	7	3.00		7.65	Morrell.....	0.32
Whiteville.....	7	2.55			Red Bluff.....	0.33
Monroe.....	7	3.14			Sacramento.....	0.35
New Iberia.....	21	2.82			Visalia.....	0.37
<i>Maryland.</i>					Tracy.....	0.40
Emmitsburg.....	28	2.50	2 hrs. 15m.		Anaheim.....	0.40
<i>Massachusetts.</i>					Niles.....	0.45
Thatcher's Island.....				8.72	Pleasanton.....	0.48
<i>Michigan.</i>					Salinas City.....	0.49
Coldwater.....	27	3.10		8.12	Delano.....	0.50
Northport.....	30 and 31	2.75		7.50	Tulare.....	0.50
<i>Minnesota.</i>					Modesto.....	0.50
Duluth.....	28	2.58		7.14	<i>Colorado.</i>	
<i>Mississippi.</i>					Hermosa.....	0.39
Hernando.....	10	4.44		9.60	Pugosa Springs.....	0.50
Vicksburg.....	7	2.79		8.30	<i>Idaho.</i>	
Lake.....	8	2.60		8.06	Eagle Rock.....	0.30
do.....	22	2.92			<i>Montana.</i>	
Brookhaven.....	8	3.00		7.60	Fort Benton.....	0.35
Edwards.....	7	2.75		7.41	<i>Nevada.</i>	
Fayette.....				7.20	Boca.....	0.00
Grenada.....	8	2.70			Carlin.....	0.00
Jackson.....	8	2.50			Elko.....	0.05
Batesville.....	10	2.53			Beowayee.....	0.07
Meridian.....	22	3.20			Tecoma.....	0.15
<i>Missouri.</i>					Goldconda.....	0.16
Protem.....	7	2.68		10.56	Browns.....	0.20
Ironton.....				9.55	Wadsworth.....	0.25
Springfield.....				8.07	Carson City.....	0.29
Centerville.....				8.06	Pioche.....	0.29
Chamois.....				7.33	Fort McDermitt.....	0.34
Salem.....				7.04	Palisade.....	0.35
<i>Nebraska.</i>					Otega.....	0.37
Lincoln.....	17	2.75		11.33	Humboldt.....	0.40
do.....	19	3.00			Hot Springs.....	0.50
do.....	22	3.25			<i>New Mexico.</i>	
<i>New Hampshire.</i>					Deming.....	0.00
Auburn.....				11.50	La Mesilla.....	0.10
Mt. Washington.....				8.91	Fort Wingate.....	0.14
<i>New Jersey.</i>					<i>Oregon.</i>	
Paterson.....	28	4.12		13.56	Umatilla.....	0.28
Barnegat.....	12	2.55		7.22	<i>Texas.</i>	
Sandy Hook.....	12	3.04		7.21	El Paso.....	0.10
<i>New York.</i>					<i>Utah.</i>	
Troy.....				9.65	Terrace.....	0.00
Fort Porter.....				7.14	Kelton.....	0.00
Port Jervis.....				7.00	Corinne.....	0.05
<i>Ohio.</i>					Ogden.....	0.20
New Athens.....	31	1.25	2 hrs.	10.61	Salt Lake City.....	0.26
Columbus.....				9.59		
Bethel.....				9.00		
College Hill.....				8.50		
Cincinnati.....				8.47		
Westerville.....				8.43		
North Lewisburg.....				7.95		

Table of Special Heavy, Largest and Smallest Monthly Rainfalls—Continued.

STATION.	SPECIAL HEAVY.			Largest Monthly. Amount. Inches.	SMALLEST MONTHLY.	
	Date.	Amt.	Duration		STATION.	Amt.
Bellefontaine.....				7.87		
Sandusky.....				7.11		
<i>Pennsylvania.</i>						
Wellsboro.....				9.12		
Milton.....				8.03		
<i>Tennessee.</i>						
Grand Junction.....	9 and 10	5.43		12.18		
Milan.....	9 and 10	6.10		10.87		
Corinth.....	10	4.15		9.82		
Ashwood.....				8.50		
Withe.....	9 and 10	5.05		9.47		
Paris.....	9 and 10	4.02		9.41		
Memphis.....	9	5.22		9.14		
Austin.....				8.40		
Nashville.....				7.34		
<i>Texas.</i>						
New Ulm.....	7	2.63		12.25		
do.....	27	2.63				
Austin.....	6 and 7	5.82		9.86		
Hempstead.....	27 and 28	5.00		9.06		
Paris.....	7	3.55		7.89		
Palestine.....	7	2.79		7.56		
Fort Elliott.....				7.48		
Brownsville.....	19	2.62		7.07		
Dallas.....	7	2.51				
Belton.....	6 and 7	5.33				
Sour Lake.....	7	3.30				
Tyler.....	7	2.80				
Waco.....	7	2.60				
Corsicana.....	7	3.00				
Fort McKavett.....	20	1.26	2 hrs.			
<i>West Virginia.</i>						
Wellsburg.....				8.05		
Helvetia.....				7.15		
<i>Wisconsin.</i>						
Manitowoc.....				7.99		

The following table shows the maxima and minima of rainy and cloudy days and percentages of relative humidity as reported from the various districts:

Table of rainy and cloudy days and relative humidity for May, 1882.

Districts.	Rainy days	Cloudy days.	Relative humidity.
			<i>Percentages.</i>
New England.....	From 12 to 20	From 8 to 16	From 58.8 to 87.0.
Middle Atlantic states.....	" 13 " 23	" 9 " 15	" 62.9 " 81.8.
South Atlantic states.....	" 7 " 17	" 3 " 11	" 64.3 " 80.6.
Florida peninsula.....	" 10 " 13	" 3 " 6	" 67.3 " 70.5.
East Gulf states.....	" 8 " 12	" 5 " 8	" 64.7 " 73.0.
West Gulf states.....	" 4 " 19	" 3 " 14	" 56.2 " 79.7.
Rio Grande valley.....	" 8 " 15	" 8 " 16	" 62.5 " 83.2.
Ohio valley and Tennessee.....	" 16 " 20	" 6 " 14	" 68.0 " 72.4.
Lower lake region.....	" 14 " 20	" 7 " 16	" 64.7 " 71.7.
Upper lake region.....	" 8 " 19	" 6 " 13	" 58.3 " 73.3.
Extreme northwest.....	" 10 " 15	" 6 " 11	" 63.4 " 74.8.
Upper Mississippi valley.....	" 9 " 20	" 9 " 16	" 52.7 " 72.5.
Missouri valley.....	" 18 " 19	" 10 " 17	" 67.1 " 73.5.
Northern slope.....	" 10 " 19	" 4 " 10	" 55.7 " 69.7.
Middle slope.....	" 10 " 19	" 4 " 10	" 58.9 " 85.6.
Southern slope.....	" 7 " 11	" 3 " 11	" 55.3 " 68.3.
Southern plateau.....	" 0 " 9	" 0 " 4	" 29.5 " 36.5.
Middle plateau.....	" 4 " 6	" 3 " 5	" 30.0 " 37.8.
Northern plateau.....	" 5 " 15	" 3 " 10	" 30.0 " 65.7.
North Pacific coast region.....	" 13 " 14	" 12 " 14	" 61.3 " 69.3.
Middle Pacific coast region.....	" 3 " 4	" 1 " 4	" 41.2 " 72.2.
South Pacific coast region.....	" 0 " 4	" 1 " 9	" 36.4 " 71.3.

SNOW.

The dates on which snow fell in the various states and territories are as follows:

New Hampshire, at Mount Washington, from 1st to 4th, 11th to 15th, 18th to 21st, 23d to 26th; elsewhere in the state on the 2d, 11th, 12th, 15th, 18th.

Vermont, 2d, 11th.

Massachusetts, 2d, 11th, 12th, 13th, 17th, 18th.

Pennsylvania, at Williamsport on the 6th.

Michigan, 1st, 2d, 23d.

Illinois, 6th, 22d, 23d.

Minnesota, 20th, 21st, 22d.

Dakota, 20th, 21st, 22d.

Montana, 8th, 16th, 18th, 19th, 20th, 22d.

Wyoming, 7th, 8th, 19th, 21st, 22d.

Colorado, on summit of Pike's Peak, 1st, 2d, 5th to 11th, 17th, 21st, 24th to 31st; elsewhere in state from 8th to 11th.

New Mexico, 6th, 7th, 8th, 20th, 21st, 26th.

Idaho, Mission, 19th.

Washington territory, 1st, 5th, 11th, 12th.

Nevada, at Winnemucca on the 4th and Pioche on the 7th.

In connection with the remarkable and very unusual snow-storms of this month, the following interesting items are given:
Pennsylvania: Pottsville, 6th, heavy snow-storm prevailed; at Trackville, three inches of snow fell.

Iowa: Marshalltown, 23d, about 1 a. m., heavy snow. Washington, 12th, from four to six inches of snow fell in the early part of the morning.

Clinton, 23d, snow fell to a depth of one inch.

Davenport, 23d, from 2 a. m., until 5.40 a. m., heavy snow-storm; fully three inches of snow fell; at daylight, one inch remained on the ground. No such storm is remembered as ever having occurred here at this season. Reports from Me-haska, Wapello, and Van Buren counties state that from one-half to two inches of snow fell during the storm. Muscatine, 23d. About two inches snow fell.

Illinois: Riley, 23d, 4.30 to 6 p. m., snow-storm prevailed, being the latest date on which snow has fallen during a record of twenty-nine years.

Maine: Eastport, 15th, snow fell to a depth of three inches, and at Dexter, on the same day, three inches of snow fell.

Massachusetts: 19th, in the southern and eastern parts of Berkshire county, snow fell to a depth of one inch.

New Jersey: 11th, in Warren county, several heavy falls of snow have occurred. South Orange, 6th, a few flakes of snow fell.

North Carolina: Reports from Highlands, 14th, state that the Balsom mountains, seventy miles northwest of that place are covered with snow.

Vermont: Burlington, 1st, heavy snow-storm during the day.

DEPTH OF SNOW ON GROUND AT END OF MONTH.

Mount Washington, New Hampshire: Three inches.

Santa Fé: Six inches of snow remain on the mountains north of station.

HAIL.

Mount Ida, Arkansas, 10th, at 6 p. m.: A violent hail storm visited this place. Trees were prostrated and tender vegetation was torn to shreds. The hail-stones were unusually large.

Logansport, Indiana, 4th: Severe hail storm that has visited this place for many years, accompanied by high winds, thunder and lightning. The hail-stones measured from three-quarters to more than an inch in length. Considerable damage was done to crops and a large amount of window-glass was broken. Several buildings were blown down and many others unroofed. The storm began at 6.30 p. m., and lasted thirty minutes.

Emmitsburg, Maryland, 28th: Hail-stones sufficiently large to break window-glass.

Troy, New York, 28th: Hail storm, doing great damage to crops.

New Athens, Ohio, 27th: Hail storm at 2.30 p. m., covering the ground with hail-stones, some of which were as large as hulled walnuts.

Shreveport, Louisiana, 10th: A terrific thunder-storm began at four p. m. From 6.10 to 6.15 p. m. hail-stones as large as hen's eggs fell. At Baskom station, twenty miles west of this place, the storm was more severe. The cotton crop was slightly injured. The principal damage done at this place was the breaking of glass in all windows of northwestern exposure.

Logansport, Indiana, 4th: During a severe storm hail-stones of immense size fell, destroying all glass exposed. The cost of glass used to replace that broken during the storm is estimated at \$2,000.

Chattanooga, Tennessee, 10th: From 12.17 to 12.30 p. m. hail-stones three-eighths of an inch in diameter fell, doing slight injury to small fruits; 15th: from 12.57 to 1.03 p. m.

hail storm from southwest to northeast. Hail-stones measuring half an inch in diameter fell, doing considerable injury to fruit and vegetables.

Brackettville, Texas, 6th: A terrific hail storm struck this station at eight p. m., and was accompanied by high winds and vivid lightning:

St. Louis, Missouri, 5th: One of the severest hail-storms that has visited this city for many years, occurred between 4.37 and 4.58 p. m. The storm was preceded during the morning and early afternoon by a low barometer; the temperature rose rapidly and the atmosphere was sultry and oppressive. At about four p. m., dense masses of cumulo-stratus clouds appeared in the southwest and rapidly covered the sky. As their eastern edge neared the zenith, large round drops of rain began to fall, and vivid flashes of lightning were observed in the southwestern sky. A few minutes later, rain descended in sheets accompanied by loud peals of thunder. Rain continued to fall in torrents until hail began at 4.37 p. m., when it somewhat subsided. At the beginning, the hail-stones were about the size of peas, but they soon increased in size until they assumed the proportions of walnuts. From 4.37 to 4.50 p. m., hail-stones varying from the size of hazelnuts to walnuts showered down with terrific and destructive violence. From 4.30 to 4.45 p. m., the wind blew from the west at the rate of forty-two miles per hour, having suddenly increased to that velocity from twelve miles. From 4.51 to 4.58 p. m., the hail-stones were very large, but fell with less force than those that fell previous to that time. During the passage of the storm the barometer suddenly rose 0.10 inch, after which it fell to its former reading. Hail-stones as large as hen's eggs fell in various parts of the city; and in some instances were reported to have been as large as a "base-ball." The largest found on the roof of the building in which the office is located, weighed three-fourths of an ounce and measured five inches in circumference. The largest stones were quite soft and contained but little ice, while those of smaller size were very hard and contained but a small quantity of snow. After the passage of the storm the wind shifted to northwest, the temperature fell decidedly with a corresponding increase of pressure. The damage done by this storm has not been accurately determined, but is very great. During the storm many accidents occurred by the running away of teams, which were tortured by the falling hail-stones.

Hickman, Kentucky, 12th: At 2 p. m., a furious hail-storm set in, lasting about five minutes.

Shelbyville, Illinois, 5th: The severest hail storm that has occurred for many years visited this place between four and five p. m. The hail-stones were as large as walnuts, breaking many windows and doing great damage to gardens and farms.

Litchfield, Illinois, 5th: One of the heaviest rain and hail storms ever experienced in this vicinity occurred during the afternoon. The hail-stones were as large as hickory-nuts. The occurrence of hailstorms of less violence have been reported as follows: Newport, Rhode Island, 20th; Portland, Maine, 2d; Albany, New York, 12th; Lynchburg, Virginia, 6th; Fort Macon, North Carolina, 11th; Denison, Texas, 9th; Shreveport, Louisiana, 10th; Little Rock, Arkansas, 8th, 9th; San Antonio, Texas, 5th, 7th; Laredo, Texas, 6th; Rio Grande City, Texas, 15th; Knoxville, Tennessee, 12th, 15th, 16th; Logansport, Indiana, 4th; Sandusky, 27th; Toledo, Ohio, 6th; Marquette, Michigan, 24th; Duluth, Minnesota, 10th, 25th; Keokuk, Iowa, 5th; Des Moines, Iowa, 3d; Saint Paul, Minnesota, 8th; Springfield, Illinois, 27th; Huron, Dakota, 20th; Cheyenne, Wyoming, 15th; Rapid City, Dakota, 30th; Fort Keogh, Montana, 15th; Fort Custer, Montana, 19th; Fort Washakie, Wyoming, 25th; Fort Shaw, Montana, 4th, 18th; Fort Ellis, Montana, 15th, 18th; Helena, Montana, 16th, 27th, 29th; West Las Animas, Colorado, 5th, 26th; Grierson Springs, Texas, 17th; Stockton, Texas, 30th; Fort Elliott, Texas, 24th; Tucson, San Carlos, and Fort Grant, Arizona, 8th; Winnemucca, Nevada, 24th; Pioche, Nevada, 25th; Eagle Rock, Idaho, 28th; Umatilla, Oregon, 18th; Spokane Falls, Washington territory, 18th;

Portland, Oregon, 14th, 18th; Fort Bidwell, California, 2d; Fort Lyon, Colorado, 30th; Fort Garland, Colorado, 7th, 10th, 30th, 31st; Fort Randall, Dakota, 3d; Fort Sisseton, Dakota, 19th; Fort Snelling, Minnesota, 9th; Fort Union, New Mexico, 6th, 17th, 31st; Camp near Presidio, Texas, 2d; Fort Monroe, Virginia, 10th; Green Springs, Alabama, 11th, 18th; Auna, Illinois, 8th, 12th, 27th; Elmira, Illinois, 5th; Laconia, Indiana, 4th, 27th; Logansport, Saint Meinrad and Wabash, Indiana, 4th; Vevay, Indiana, 4th, 5th; Cresco and Nora Springs, Iowa, 4th; Muscatine, Iowa, 5th; Holton, Kansas, 25th; Clay Centre, Kansas, 26th; Wellington, Kansas, 27th; Cornish, Maine, 2d; Somerset, Massachusetts, 11th, 18th; Westborough, Massachusetts, 18th; Minneapolis, Minnesota, 8th; Protern, Missouri, 5th, 8th; De Soto, Nebraska, 26th; Genoa, Nebraska, 4th; New Market, New Hampshire, 2d, 18th; Freehold and South Orange, New Jersey, 6th; Flushing and Troy, New York, 28th; Murphy, North Carolina, 6th, 10th; Weldon, North Carolina, 10th; New Athens, Ohio, 27th; Albany, Oregon, 12th; Dybery, Pennsylvania, 18th; Meadville, Pennsylvania, 1st; Clarksville, Texas, 26th; Wytheville, Virginia, 5th; Manitowoc, Wisconsin, 8th; Missiou, Idaho, 12th.

SLEET.

Sleet was reported as follows: Boston, 8th; Fort Yates, Dakota, 20th; Dubuque, Iowa, 5th; Burlington, Iowa, 23rd; Cheyenne, Wyoming, 21st; North Platte, Nebraska, 22d; Fort Washakie, Wyoming, 9th; Pike's Peak, Colorado, 1st, 2nd, 5th, 6th, 25th; Santa Fé, New Mexico, 9th; Fort Garland, Colorado, 9th; Anna, Illinois, 12th; Huron, Dakota, 20th.

COTTON REGION REPORTS.

The following table gives the average rainfall, mean of the maximum and mean of the minimum temperatures, in each of cotton districts; as shown on the chart issued with the April REVIEW.

Meteorological Record for the Cotton Districts for the month of May, 1882.

DISTRICTS.	Average rainfall in inches.	Mean of the maximum.	Mean of the minimum.
New Orleans.....	5.57	84.4	61.1
Savannah.....	2.59	84.8	60.7
Charleston.....	2.53	81.9	58.1
Atlanta.....	2.39	78.9	56.2
Wilmington.....	2.52	79.0	54.6
Memphis.....	7.58	77.7	56.3
Galveston.....	5.25	83.9	59.9
Vicksburg.....	7.03	81.9	60.8
Montgomery.....	3.02	81.9	58.2
Augusta.....	2.11	82.2	57.8
Little Rock.....	11.04	78.7	53.6
Mobile.....	4.69	83.4	58.3

WINDS.

The prevailing direction of the winds during the month of May at Signal Service stations are shown on chart ii, by arrows flying with the wind. On the New England coast they were mostly from the south and southwest; in the middle Atlantic states from the northeast, south and southwest; in the south Atlantic states, from the south and southwest; in Florida, from the east; in the Gulf states, Rio Grande valley and southern slope, from the south and southeast; in Tennessee and the Ohio valley, mostly from the south; in the lower lake region, from the northeast and east, except at Oswego and Rochester, where they were westerly; in the upper lake region, mostly from the north; in southern California they were westerly; in the north and middle Pacific coast regions from the north and northwest; elsewhere they were variable.

TOTAL MOVEMENTS OF THE AIR.

The following are the largest total movements at Signal Service stations: Mount Washington, 27,241 miles; Pike's Peak, Colorado, 14,716; Delaware Breakwater, Delaware, 12,967; New Shoreham, Rhode Island, 12,382; Portsmouth, North Carolina, 12,313; Hatteras, North Carolina, 11,972; Indianola, Texas, 11,495; Kitty Hawk, North Carolina, 11,354; Dodge City, Kansas, 11,276; Thatcher's Island, Massachusetts, 10,870; Sandusky, 10,631; Cape Henry, Virginia,